

IN THE SPECIFICATION

Please amend the paragraph beginning on page 11, line 21 as follows:

Figure 6 is a signal graph of the sampled cardiac signal 500 of Figure 5, illustrating that the turning/inflection point evaluation need not be performed at the same frequency at which the cardiac signal was sampled. In the example of Figure 6, the turning/inflection point determination is based on the evaluation sample 502, $x(i)$; a previous sample 504, such as preceding sample $x(i-2)$; and a subsequent sample 506, such as succeeding sample $x(i+2)$. Thus, Equation 1 can be expressed more generally as:

$$TP = \text{sign}\{x(i)-x(i-K1)\} * \text{sign}\{x(i+K2)-x(i)\} \quad (2)$$

where $K1$ and $K2$ are integer offset constants which may, but need not, be the same value.

Moreover, the turning point evaluation may be carried out repeatedly over different subsampling frequencies of the frequency at which the cardiac signal was sampled. In such a technique, a vector of TP values corresponding to the different subsampling frequencies may provide useful information about the frequency content of the noise, or may allow the noise detection to be tailored to noise having a particular frequency content. In one example, this is accomplished by varying K between different values, and, at the different values of K : (1) determining, for each sample, $TP = \text{sign}\{x(i)-x(i-K)\} * \text{sign}\{x(i+K)-x(i)\}$, in which $x(i)$ is the i th sample of the sampled cardiac signal $x(n)$, and in which K is an integer offset, and in which $TP = -1$ is used as at least one factor indicating that $x(i)$ is a turning point; and (2) deeming the cardiac signal to be noisy if a number of turning points occurring during a fixed number of samples preceding $x(i)$ exceeds a threshold value.